E-SOVE

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PROGRAM AND ABSTRACTS

P3 Exploring *Culicoides* species communities at continental scale: a unique collaborative approach

T. Balenghien

Cirad, Institut agronomique et vétérinaire Hassan II Madinat Al Irfane B.P. 6202. 10 100 Rabat-Instituts, Morocco

Culicoides biting midges were responsible for continental scale epizootics of viruses, including several bluetongue virus (BTV) serotypes. The existence of epi-zones has been suggested to explain the geographical range of the spread of BTV serotypes. The structure of *Culicoides* populations may contribute to the definition of these epi-zones, whereas their movements may be involved in their connections. One of the objectives of the PALE-Blu project (Understanding pathogen, livestock, environment interactions involving bluetongue virus) is to determine if the composition of *Culicoides* species communities may be involved in the existence of these epi-zones. For this purpose, an extensive dataset of abundance data, focusing on the most common *Culicoides* species, was established. We used as long as possible longitudinal *Culicoides* follow-ups carried out with UV light-traps. The yearly maximum abundance (i.e. the largest single night trap catch in the collecting period) was used to aggregate data against time and to produce an index of the species abundance. If the collection period covers several years, then we used the average of the yearly maxima of abundance for *Culicoides obsoletus*/*Culicoides scoticus*, *Culicoides imicola*, *Culicoides chiopterus*, *Culicoides dewulfi*, *Culicoides pulicaris*/*Culicoides lupicaris*, *Culicoides punctatus*, *Culicoides newsteadi*, and *Culicoides kingi*. The gathered data may have been shared by National surveillance systems or have been produced by VectorNet (2014-2018), which is a joint initiative of the European Food Safety Authority (EFSA) and the European Centre for Disease Prevention and Control (ECDC). This project supported the collection of data on vectors, related to both animal and human health, to map the presence/absence of vectors in Europe (in the geographical sense) and around the Mediterranean basin. The VectorNet data were obtained by a formal request to ECDC (reference number 18-1421). The final dataset contains a total of 639 sites from 27 countries (from Senegal to Scandinavia, and from Iceland to Turkey). The existence of this database was only possible by a collaborative approach, involving 29 partners. The purpose of this poster was to thank contributors and enhanced future collaborations at continental scale.